CLAIMS

Having described the invention, what is claimed is:

1. A method of implementing firmware updates to a programmable part within a circuit board, comprising the steps of:

creating an image file of firmware used to program the part; storing the image file at a firmware server;

integrating the programmable part with the printed circuit board; and

networking with the firmware server such that the image file downloads to the circuit board for programming the programmable part.

2. The method of claim 1, further comprising the step of automatically polling the firmware server to download the firmware to the circuit board.

3. The method of claim 1, further comprising the step of integrating a serial chip with the printed circuit board, the serial chip polling the firmware server to download the firmware, the programmable part having bootstrap software to download the firmware from the serial chip to the programmable part.

4. The method of claim 1, the step of networking comprising utilizing one or more of the Internet, LAN, WAN or mixtures thereof.

5. The method of claim 1, further comprising updating the firmware image file at the firmware server, wherein subsequent downloads of the firmware image file to a programmable part is seamless to the updated firmware.

6. The method of claim 1, wherein the step of networking comprises utilizing a first interface server local to the programmable part and remote from the firmware server.

7. The method of claim 6, wherein the step of utilizing a first interface server comprises coupling the printed circuit board to a connector of the first interface server.

8. The method of claim 1, wherein the step of networking comprises networking the firmware server with the printed circuit board.

9. A system for programming programmable parts in a manufacturing line, comprising:

a firmware server connected to a network for storing one or more firmware image files;

one or more interface servers with the manufacturing line connected to the network, for capturing at least one of the image files from the firmware server; and

one or more printed circuit boards with one or more programmable parts connected with at least one of the interface servers, for programming at least one of the programmable parts with firmware corresponding to at least one of the image files.

10. The system of claim 9, wherein one of the interface servers sequentially connects with a plurality of printed circuit boards.

11. The system of claim 10, the one interface server comprising a connector for physically coupling with the plurality of circuit boards.

12. The system of claim 11, the connector having one or more pins that interface in a programming configuration with pads or pins on the plurality of printed circuit boards to program the programmable parts.

13. A method of implementing firmware updates to programmable parts within one or more circuit boards, comprising the steps of:

creating one or more image files of firmware used to program the parts;

storing the image files at a firmware server; and

networking with the firmware server such that at least one of the image files downloads to at least one of the circuit boards for programming at least one of the programmable parts.

14. The method of claim 13, the step of networking comprising utilizing one or more of the Internet, LAN, WAN or mixtures thereof.

15. The method of claim 13, further comprising updating at least one of the firmware image files at the firmware server, wherein subsequent downloads of the one firmware image file to one or more of the programmable parts is seamless to the updated firmware.

16. The method of claim 13, wherein the step of networking comprises utilizing one or more interface servers remote from the firmware server.

17. The method of claim 16, wherein the step of utilizing the interface servers comprises coupling one or more of the printed circuit boards to a connector of at least one of the interface servers.

18. The method of claim 16, wherein the step of networking comprises simultaneously networking a plurality of interface servers to the firmware server.

19. The method of claim 16, wherein the step of utilizing the interface servers comprises networking devices within one or more of the circuit boards to a network coupled to the firmware server.

20. The method of claim 19, further comprising the step of concurrently programming a plurality of programmable parts on one or more of the circuit boards through downloading, over the network, a plurality of the image files to the plurality of programmable parts.